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**U.S. Army Research Institute
for the Behavioral and Social Sciences**

Research Report 1582

Readiness and Family Factors: Findings and Implications from the Literature

Laurel W. Oliver
U.S. Army Research Institute

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKING ---	
2a. SECURITY CLASSIFICATION AUTHORITY ---		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.	
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE ---			
4. PERFORMING ORGANIZATION REPORT NUMBER(S) ARI Research Report 1582		5. MONITORING ORGANIZATION REPORT NUMBER(S) ---	
6a. NAME OF PERFORMING ORGANIZATION U.S. Army Research Institute	6b. OFFICE SYMBOL (If applicable) PERI-RP	7a. NAME OF MONITORING ORGANIZATION ---	
6c. ADDRESS (City, State, and ZIP Code) 5001 Eisenhower Avenue Alexandria, VA 22333-5600		7b. ADDRESS (City, State, and ZIP Code) ---	
8a. NAME OF FUNDING/SPONSORING ORGANIZATION U.S. Army Research Institute for the Behavioral and Social Sciences	8b. OFFICE SYMBOL (If applicable) PERI-R	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER ---	
8c. ADDRESS (City, State, and ZIP Code) 5001 Eisenhower Avenue Alexandria, VA 22333-5600		10. SOURCE OF FUNDING NUMBERS	
		PROGRAM ELEMENT NO. 63007A	PROJECT NO. 792
		TASK NO. 2302	WORK UNIT ACCESSION NO. H1
11. TITLE (Include Security Classification) Readiness and Family Factors: Findings and Implications from the Literature			
12. PERSONAL AUTHOR(S) Oliver, Laurel W.			
13a. TYPE OF REPORT Final	13b. TIME COVERED FROM 90/01 TO 90/04	14. DATE OF REPORT (Year, Month, Day) 1991, February	15. PAGE COUNT
16. SUPPLEMENTARY NOTATION An earlier version of this paper was presented at the Military Family Research Review Conference, Andrews Air Force Base, Maryland, on February 9, 1990.			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	
		Readiness, Policy implications	
		Performance (Human), Program implications	
		Family factors, Unit Status Report (USR)	
19. ABSTRACT (Continue on reverse if necessary and identify by block number) In response to Army mandates, the Army Family Research Program (AFRP) is conducting research on the influence of families on readiness and other issues of interest to the Army. This report is concerned with the relationship of family factors to readiness. The author discusses the definition and measurement of readiness, reviews what is known about how families affect readiness, describes how the AFRP will add to our understanding of family factors and readiness, suggests policy and program implications based on existing findings, and discusses additional research needs.			
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified	
22a. NAME OF RESPONSIBLE INDIVIDUAL Laurel W. Oliver		22b. TELEPHONE (Include Area Code) (202) 274-8293	22c. OFFICE SYMBOL PERI-RP

Research Report 1582

Readiness and Family Factors: Findings and Implications from the Literature

Laurel W. Oliver
U.S. Army Research Institute

Personnel Utilization Technical Area
Nora K. Stewart, Acting Chief

Manpower and Personnel Research Laboratory
Zita M. Simutis, Director

U.S. Army Research Institute for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

Office, Deputy Chief of Staff for Personnel
Department of the Army

February 1991

Army Project Number
2Q263007A792

Manpower and Personnel

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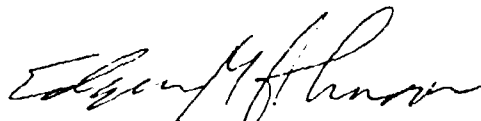
FOREWORD

The Army Family Research Program (AFRP) is a 5-year integrated research program initiated in November 1986 in response to research mandated by both the CSA White Paper, 1983: The Army Family and The Army Family Action Plans (1984-1989). The objective of the research is to support the Army Family Action Plans and assist Army family programs and policies by (1) determining the demographic characteristics of Army families, (2) identifying motivators and detractors to soldiers remaining in the Army, (3) developing pilot programs to improve family adaptation to Army life, and (4) increasing operational readiness.

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI), with assistance from the Research Triangle Institute, Caliber Associates, HumRRO, and the University of North Carolina, is conducting the research.

ARI has provided frequent updates on the major findings of this research effort. The research has established a foundation for subsequent phases of the research program that will provide alternative measures of readiness for comparative analyses and operational use.

An earlier version of this report was presented to DoD and Army policy makers and program managers at the Military Family Research Review held at Andrews Air Force Base, February 7-9, 1990. Comments from the audience and requests for copies of the presentation indicated the value of the project.



EDGAR M. JOHNSON
Technical Director

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READINESS AND FAMILY FACTORS: FINDINGS AND IMPLICATIONS FROM THE LITERATURE

EXECUTIVE SUMMARY

Requirement:

The Army Family Research Program (AFRP) is an integrated, 5-year research project initiated in November 1985 to conduct research mandated by the (Chief of Staff of the Army) White Paper on the Army family and by the Army Family Action Plans. One aspect of the research will provide guidance for Army family policies and programs in the area of operational readiness. This document is a revised version of a paper presented at the Military Family Research Review at Andrews Air Force Base, Maryland, February 7-9, 1990.

Procedure:

This report examines the relationship of family factors to readiness. It discusses the definition and measurement of readiness, describes how the AFRP will add to our understanding of family factors and readiness, reviews what is known about how families affect readiness, considers policy and program implications from existing findings, and suggests additional research needs.

Findings:

There is considerable historical documentation that soldiers have deserted, been absent without leave (AWOL), or performed less effectively during wartime because of concerns about their families. To date, little research has specifically addressed the issue of families and readiness except for the relationship of children to readiness. These findings indicate that, in general, the more children a soldier has, the less ready the soldier tends to be. If findings related to retention can be generalized to readiness, spouse attitudes (e.g., satisfaction with and support for the soldier's military career) may increase readiness. Family stresses diminish readiness, and family programs designed to prevent or alleviate such stress can be expected to enhance both individual and unit readiness. The AFRP has developed measures of individual and unit readiness and conducted a world-wide administration of the instruments to a large sample of Army personnel and their spouses. Analysis of the data will considerably augment what is currently known about families and readiness.

Utilization of Findings:

These findings have specific implications for Army policies and programs. First, the direct alleviation of family stress through the provision of appropriate policies and programs is indicated. Second, since Army leaders must implement the family programs and policies, there is a need for training in leadership practices that establish a climate supportive of soldiers and their families.

READINESS AND FAMILY FACTORS: FINDINGS AND IMPLICATIONS FROM THE LITERATURE

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READINESS AND FAMILY FACTORS: FINDINGS AND IMPLICATIONS FROM THE LITERATURE

Introduction

The Army Family Research Program (AFRP) is an integrated, five-year effort to support, through research, the mandates of the Chief of Staff of the Army (CSA) 1983 White Paper on the Army Family (U.S. Army Chief of Staff, 1983) and the Army Family Action Plans (AFAPs), which are issued yearly. One of the principal areas of concern in both the White Paper and the AFAPs has been how family factors influence Army readiness. For example, the 1986 AFAP contains the following questions which are to be addressed by research:

- (1) What family factors may be related to soldier and civilian performance, whether on the installation, in the field, or deployed?
- (2) How do these factors show up in soldier performance?
- (3) What are family needs during deployment?
- (4) What are the family services, programs, and policies which contribute most to readiness? What is missing?

(Headquarters, Department of the Army,
1986, p. 15)

This report has several purposes: (1) to discuss the definition and measurement of readiness; (2) to review what is already known about how families affect soldier and unit readiness; (3) to describe how the AFRP will add to our understanding of family factors and readiness; (4) to suggest policy and program implications from existing findings; and (5) to discuss additional research needs. Note that this report is concerned with the Active Component. Another report (Griffith, Greenless, Becraft, Hennessy, & Geleta, 1990) discusses readiness issues in the Reserve Component.

Definition and Measurement of Readiness

The measurement of readiness has been a murky area. In a literature review of readiness and family factors, Kralj, Sadacca, Campbell, and Kimmel (1988) concluded: "But what readiness is, and how it may be measured, and where it comes from are questions still open to investigation" (p. A-1). In this respect, readiness is not unlike other outcomes of great interest to the Army--such as individual or unit performance and unit effectiveness--for which measurement problems abound. This

section will examine several definitions of readiness and discuss some of the problems involved in the measurement of this important construct.

Definitions of Readiness

It is interesting to note that documents dealing with readiness do not always define the term. Even the Army 1988 "White Paper" on readiness (U.S. Army Chief of Staff, 1988) did not offer a definition. Kralj et al. (1988) cited a General Accounting Office (GAO) report which defined readiness for the Department of Defense (DoD) as the "ability of forces, units, weapon systems, or equipment to deliver the outputs for which they were designed (includes the ability to deploy and employ without unacceptable delays)" (p. A-8). From the GAO definition, Kralj et al. (1988) developed the following definition of unit readiness: "the capability of an Army unit to perform the mission for which it is organized" (p. 9).

Although the focus of the Army is on the potential performance of units in combat, this performance is at least logically dependent on the readiness of the individuals who serve in the unit to perform their missions. Families, in turn, are also believed to contribute to unit readiness through: (1) their ability to function independently while the soldier is away, (2) their willingness to help other families to function, (3) their psychological and physical support of the soldiers, and (4) their encouragement of the soldier to remain in the service and to work toward Army goals (Kralj et al., 1988).

The development of the readiness measures designed for the AFRP will be described later in this report. The definition upon which they are based is similar to the Kralj et al. (1988) definition given above. A working definition of readiness adopted in the selection and construction of the separate readiness measures for the AFRP was based on the belief that an overall readiness index was essentially a measure of the probability that individuals or units would be able to accomplish their wartime missions (R. Sadacca, personal communication, April 19, 1990).

Measures of Readiness

Readiness can be viewed as a precursor of combat performance. That is, individuals and units which are "ready" will be able to execute their missions successfully. Readiness, then, may be assessed by soldiers' SQT (Skill Qualification Test) proficiency, by how well they perform on field training exercises, and so on. These types of performance constitute what is generally called "job performance" in the civilian literature. After reviewing the literature on job performance, Kralj et al. (1988) concluded that individual readiness "is a function of the

soldier's attitudes and perceptions, as well as his/her job performance" (p. A-22). Segal (1986) has also drawn attention to the need to consider the qualitative, less tangible indicators of readiness. Of course, indicators such as leadership, job satisfaction, commitment, cohesion, morale, and motivation are not as readily quantifiable as other indicators of readiness or status.

The Army's current measures of status are based on the Unit Status Report (USR). This report contains four categories: personnel, equipment on hand, equipment readiness, and training. For a given unit, a rating is determined for each category. A unit's overall rating is the lowest of its four category scores.

As a measure of status, the USR has received criticism. Not only is the report subject to bias, but it also fails to include assessments of factors such as experience, morale, and leadership (Kralj et al., 1988; Segal, 1986). Some factors the USR attempts to evaluate cannot be accurately reported. Turbulence, for example, is underreported because commanders are instructed to record only inter-battalion job changes and not intra-battalion changes (Boyce & Jacobs, 1989; Oliver, in press). Thus an officer could have three or more different jobs in the same battalion, but these changes would never appear on the USR.

Development of Readiness Measures for the AFRP

Since current Army measures of readiness have their shortcomings, considerable effort was expended on developing readiness measures for the AFRP. The instrument construction process began with a review of the literature which was followed by workshops with various Army subject matter experts (representing noncommissioned officers, commissioned officers, and spouses). In these workshops, "critical incidents" were generated which described instances representing various degrees of readiness.

Researchers used the critical incident examples to draft rating scales and then pilot tested the rating scales. The results of the pilot test were used to revise the rating scales, and a second pilot test was conducted on the revised measures. After final revisions of the measures, a field test was made using the revised instruments and procedures, and the results were analyzed.

The readiness measures designed for the AFRP have been incorporated into several different instruments. After review and approval by appropriate Army organizations,¹ the instruments were administered at installations both within the continental United States and overseas to enlisted personnel (from private to sergeant major) and officers (from lieutenant to colonel and all grades of warrant officers). This set of instruments includes assessments of personnel and equipment, as does the USR. However, the instruments also include other readiness indicators such as evaluations of training, leadership, cohesion, deployability, concern for families, individual and unit performance, etc.²

As indicated above, the AFRP readiness measures are based on the definition of readiness as "the probability that the unit (or individual) will be able to accomplish its wartime mission." Separate measures of readiness were considered useful to the extent that they indicated higher or lower probability that individuals or units would be successful in achieving their missions. Hence the rationale for including the various indicators is that when these elements are present at higher levels the probability that the mission will be accomplished is enhanced (R. Sadacca, personal communication, April 19, 1990).

Since the various readiness measures are not of equal importance in increasing the probability of mission accomplishment, efforts were made to ascertain the relative importance of each one to overall readiness. Workshops were held in which subject matter experts (officers and NCOs) "weighted" the various measures in terms of their relative contributions to readiness. This guidance by the experts resulted in reliable weights being assigned to the measures. The weighted measures will be combined to construct a readiness index.

The readiness index developed for the AFRP will be used to answer more specific and in-depth questions concerning readiness. At present, there are few research findings that directly address readiness as an outcome. Data collected in the extensive worldwide data collection noted above will be analyzed to deal with readiness issues. Research implications are discussed in the last section of this paper.

¹These agencies included the Office of the Deputy Chief of Staff for Personnel (ODCSPER), the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS), and the Community Family Support Center (CFSC).

²The various readiness measures can be found in Volume II of the AFRP Analysis Plan (Research Triangle Institute, 1990).

What Is Known About Families and Readiness

Effects of Families on Combat Performance

There is considerable historical documentation that soldiers have deserted, been absent without leave (AWOL), or performed less effectively during wartime because of concerns about their families. In the U.S. Civil War, for example, many soldiers returned to their homes when those areas were being overrun by enemy troops in order to look after their families. Of Vietnam deserters participating in the Presidential Clemency Program, 35% reported family-related problems as their primary reason for deserting (Bell & Houston, 1976). (Since most of these Vietnam soldiers were single, the family involved was probably their family of origin.) Thus it is clear that historically family concerns have affected readiness by being the cause of soldiers' leaving their posts or not showing up for duty.

Soldiers in overseas assignments, such as Europe, have only a limited amount of confidence that their families would be safe in the event of hostilities. Kralj et al. (1988) reported the results of a study that found that fewer than half the soldier respondents believed the Army's noncombatant evacuation program could protect their families. The Army, also recognizing the difficulties of evacuating families in locations such as Korea, has been reluctant to allow families to accompany soldiers assigned to that area.

There is also evidence that family stresses render soldiers more vulnerable to battle shock (Gal, 1986). During the Yom Kippur War of 1973, 80 percent of the psychiatric casualties reported personal or family stresses occurring prior to or during the war. These stresses included pregnant wives, sick family members, and family deaths.

Findings Specific to Readiness

Although there has been considerable research on readiness as an outcome of interest to the Army, the findings are sparse when one tries to locate work specifically addressing the role of family factors in the enhancement of readiness.

Vernez and Zellman (1987) reviewed the relationship of family factors to military attrition, retention, and readiness. These authors reported that only one family factor could be found in the readiness literature. (The attrition and retention literatures, on the other hand, contained data on 23 family factors.) This factor was "children," and the effect on readiness was negative--the more children, the less ready was the individual.

The focus of Vernez and Zellman was on "personnel readiness" rather than on training readiness and equipment status. In this category, they included not only the amount and quality of personnel supply but also loss of duty time and erosion of motivation and commitment, "two aspects of individual motivation and behavior that are not frequently measured, but which may directly or indirectly affect readiness" (Vernez & Zellman, 1987; p. 13).

Army commanders have observed how families contribute to readiness. For example, commanders who make off-duty time predictable strengthen the ability of families to function since long and unpredictable hours constitute a major source of family difficulties. Another factor that diminishes readiness is interacting with the medical care system. There seems to be some question about whether or not military medical facilities are cost effective for the Army since many soldiers insist on accompanying their families to military clinics to help them cope with the system. Readiness is thus diminished by the soldier's absence. (Vernez, Burnam, Sherbourne, & Meredith, 1986.)

It also appears that family programs are cost effective even when commanders and their staffs are already overburdened. Kirkland and Katz (1989) interviewed commanders about the effects of families on unit readiness. These leaders believed that the additional time and effort required by the Army family programs was minimal compared to the time saved by avoiding Article 15s, chapter actions, and other time-consuming situations.

Retention Findings

To the extent that family factors that affect retention will affect readiness, some generalizations from the retention research might be made. For example, spouse attitudes have been shown to be very important in soldier retention (Moghadam, 1989). In fact, one of the most consistent findings in the retention literature is that spouse support is positively and significantly related to reenlistment intentions of military personnel (Orthner, 1990a). It has also been found that spouse employment is related to spouse support for a soldier's military career. For example, wives who are satisfied with their current employment situations tend to be more supportive of their husbands' remaining in the Army. And since family economic factors are related to retention, it is possible that these factors may also affect readiness by influencing satisfaction with the military (Orthner, 1990a).

Retention may also have implications for readiness by contributing to the stability of units. Higher retention rates mean less turnover, resulting in more experienced unit members and greater cohesion.

Stress and Readiness

One of the factors that can lead to diminished readiness is stress, and family problems may be a source of stress. Some of the family stresses may stem directly from features of Army life such as long work hours and separations, while others may be related to personal circumstances which are not so directly concerned with the Army job (Kralj et al., 1988; Vernez & Zellman, 1987). Spouse preparedness, discussed above, pertains to the ability of spouses to cope with such stresses.

Several items in the 1985 Department of Defense (DoD) Survey of Spouses (Griffith, Doering, & Mahoney, 1986) concerned the respondents' perceptions of problems caused by military job demands. Work schedule changes, no-notice alerts, no-notice deployments, short-term emergencies, and long-term emergencies all contributed to perceptions of family problems.

Although substantial numbers of all military respondents reported they responded quickly to military job demands, dependent care considerations were seen as the main obstacle by those with children--especially dual-military couples. All respondents reported that their dependent arrangements were more workable for short-term emergencies (e.g., a mobility exercise) than for long-term situations (e.g., unit deployment). Fewer enlisted than officer respondents felt they had workable dependent arrangements, and fewer respondents with military spouses felt their arrangements were workable than did single-parent respondents (Griffith et al., 1986).

Stress was also investigated in a 1987 survey of Army families (Griffith, Stewart, & Cato, 1988). One item asked spouses about the extent to which each of six circumstances constituted a problem for the respondent. Two of these situations related rather directly to readiness: coping with day-to-day stresses and problems of "getting along" when the spouse is away because of TDY or other reasons. Few spouses said coping day-to-day was a serious problem, although about half said it was a slight or moderate problem. More of a problem for these spouses, especially for the younger ones, was getting along when their soldier spouses were away. The link between stress and lesser readiness has been reported by U.S. Army commanders (Kirkland & Katz, 1989) and documented by research data collected during armed conflict (Gal, 1986).

Satisfaction and Readiness

In the civilian literature, job satisfaction is inversely and consistently associated with job absence, with correlations tending to be moderate ($\sim .40$) (Locke, 1976). Iaffaldano and Muchinsky (1985) concluded that job satisfaction is reliably related to performance, although at a low level ($r = .17$).

Kralj et al. (1988) have postulated that job and Army satisfaction play a significant role in both individual and unit readiness, although the link between job satisfaction and readiness has not yet been firmly established. One of the family factors which may be important here is outside employment by the wife. There are several studies which found that working wives, especially those with professional jobs, were less satisfied with the military (Kralj et al., 1988).

Implications for Policies and Programs

The findings of research investigating the relationship of family factors to readiness suggest two major areas of consideration for Army policies and programs: first, the direct alleviation of family stress and, secondly, the establishment of an organizational climate favorable for the support of Army families and their effective functioning. In addition to the suggestions given here, the reader is referred to Orthner (1990a, 1990b). Orthner's papers contain implications for policies and programs that could enhance readiness as well as promote retention and family adaptation.

Direct Alleviation of Family Stress

The intent of many Army family policies and programs is to ease the stresses encountered by Army families in both their day-to-day living and during stressful events such as relocations or separations. Programs related to child care, spouse employment, volunteer support groups, relocation assistance, etc. all probably contribute to the direct alleviation of family stress. Army policies which promote such things as unit stability, good health care, fair allocation of housing resources, and the use of volunteers in community services programs probably also contribute to this end.

Establishing a Supportive Organizational Climate

In addition, these research findings have clear implications for leadership training and practices. While viable Army family policies and programs are essential, it is Army leadership which must implement the policies and insure that the programs are available to soldiers and their families. In exploratory interviews, Styles, Janofsky, Blankinship, and Bishop (1988) found that officers stressed the importance of the "sensitivity of post leadership to families" (p. 39). Leaders need, first, to know what programs are available and for whom. Leaders also need training in the leadership practices which establish a climate supportive of soldiers and their families. To establish an atmosphere of trust and respect, leaders at all levels must express concern for families in both words and actions. As Styles et al. (1988) reported, "The mere presence of family

programs and activities does not ensure a sense of supportiveness for Army families; leadership must demonstrate their interest and concern for families" (p. 41).

Implications for Research

The findings reviewed here have implications for future research. The first two readiness questions in the AFAP (see page 1 of this report) concerned family factors and their relationship to performance. We need to know which family factors are related to soldier performance (Question 1) and how they affect performance (Question 2). It is possible that the effect of family factors may differ for high and low performers. The type of job a soldier has may be related in perhaps complicated ways (in interaction with other factors) to his or her readiness and performance. The analysis of recently collected survey data may provide answers to these questions.

Other issues to be addressed by future research relate to identifying family needs during deployment (Question 3) and determining which family services, programs, and policies contribute to readiness (Question 4). Families at different life cycle stages or in different family structures (single-unattached soldiers, young marrieds with children, sole parents, dual military couples, empty-nest older marrieds, etc.) may have different needs and may require somewhat different forms of support. Again, data already collected with the readiness instruments described above should provide answers to these questions.

In addition, comparisons of Army data with similar data collected on civilians and other military populations might prove to be revealing. Also not known is the role played by both group and individual variables such as cohesion, motivation, and commitment in the enhancement of readiness. Again, these factors may interact not only with policies and procedures but also with leadership practices, perhaps in a complex fashion.

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